TRAINING COURSE: MARIA DB COLUMN STORE

This course teaches experienced database administrators how to install and use MariaDB ColumnStore, a MariaDB storage engine that enables you to run business analytics and transactional processes simultaneously. Students will learn how to deploy and manage ColumnStore, bulk-import large amounts of data and import data in parallel and automatically.

COURSE HIGHLIGHTS

Students will learn a wide range of skills related to ColumnStore, including the following:

- Discuss the fundamentals of parallel processing and gain an understanding of the different topology options of MariaDB ColumnStore
- Describe ColumnStore’s storage architecture
- Understand how queries are executed and which data types are supported in ColumnStore
- Install and configure ColumnStore on a single node and multiple nodes
- Discuss the available logging in ColumnStore
- Plan for and perform an upgrade from a previous ColumnStore version
- Discuss typical import methods; e.g., using the INSERT and LOAD DATA INFILE statements
- Use CPIMPORT and its three modes for faster bulk importing
- Migrate an existing analytical database to MariaDB via ColumnStore
- Use administrative system commands and CMAPI for advanced management tasks
- Discuss SQL features, including window functions and cross-engine joins
- Understand encrypted connections and data-at-rest encryption
- Discuss system-level security considerations
- Back up and restore MariaDB ColumnStore data
- Understand performance tuning considerations such as data modeling, sizing recommendations, memory management, multi-table and disk-based joins, and disk-based aggregation
- Analyze individual queries using the callGetStats function
- Enable and collect ColumnStore query statistics history
- Locate and use ColumnStore troubleshooting logs and utilities
- Diagnose startup problems and cross-engine support errors
- Understand high availability options at the node level, the storage level, and with the use of the MariaDB MaxScale database proxy

Formats: In-person course, live virtual, or on-demand course
Length: 3 days (6.5-hour sessions); self-paced for on-demand course

Prerequisites:
- Completion of the MariaDB Standard DBA course or relevant working experience as a MariaDB database administrator
- Intermediate MariaDB skills
- Intermediate to advanced knowledge of databases in general

Recommendation:
- Linux administration skills
- MariaDB server configuration and usage experience
- Familiarity with AWS VMs
- Familiarity with VirtualBox

- Discuss using S3 or GlusterFS for storage redundancy
- Integrate ColumnStore with MariaDB Enterprise
- Deploy a hybrid transactional/analytical processing (HTAP) topology

LIVE LEARNING: ONLINE AND ON-SITE

MariaDB offers flexible training options so your team can learn the way that works best for them: online or on-site. The most popular option is the virtual classroom, where the course is delivered in a live virtual setting using technology such as Zoom. An instructor will speak during the class through an audio feed and will share screens on their computer, including a slide presentation and a terminal window. Students can interact with the instructor and other students via a text-chat interface and through their audio feeds. A copy of the slide presentation and lab exercises workbook will be provided so students may annotate them during class.

READY TO START LEARNING?

Register now or contact us to schedule an in-person class.